

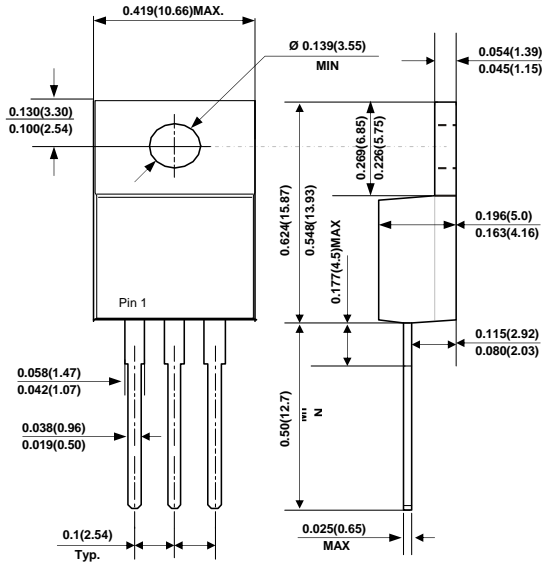


MBR3020CT THRU MBR30200CT

30 AMPERS SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 and 200 Volts Forward Current - 30.0 Ampere

TO-220AB



FEATURES

- ◆ Flame Retardant Epoxy Molding Compound.
- ◆ Metal silicon junction, majority carrier conduction.
- ◆ Low power loss, High efficiency, High current capability.
- ◆ Guardring for overvoltage protection.
- ◆ Electrically Isolated. No Isolation Hardware Required.
- ◆ In compliance with EU Rohs 2002/95/EC directives.
- ◆ For use low voltage, high frequency inverters froo wheeling, and polarity protection application.
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0.

MECHANICAL DATA

Case: TO-220AB, Molded plastic package.

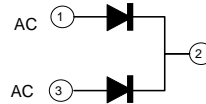
Terminals: Solderable per MIL-STD-750 · Method 2026

Standard Packaging : Tube.

Polarity: As marked.

Mounting Position: Any.

Weight: 0.0655 ounces, 1.859 grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOLS	MBR30 20CT	MBR30 40CT	MBR30 45CT	MBR30 50CT	MBR30 60CT	MBR30 80CT	MBR30 100CT	MBR30 150CT	MBR30 200CT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	45	50	60	80	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	28	31.5	35	42	56	70	105	140	Volts
Minimum DC Breakdown Voltage	V_{DC}	20	40	45	50	60	80	100	150	200	Volts
Average Rectified current	$I_{F(AV)}$	30									Amp
Non-repetitive Peak Forward Surge Current at 8.3ms half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	275									Amps
Maximum Forward Voltage at $I_F=30A$	V_F	0.70			0.75		0.80		0.9		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ C$	I_R	0.05									mA
Typical Thermal Resistance	$R_{\theta JC}$	1.5									$^\circ C/W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-50 ~ +150			-65 ~ +175						$^\circ C$

Note: Both bonding and chip structure are available.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

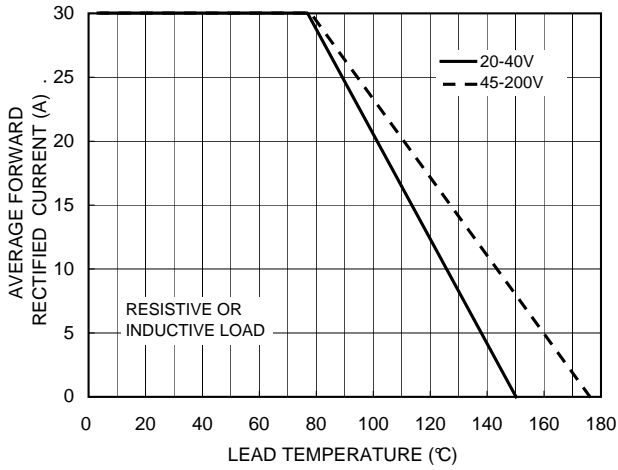


FIG. 2-TYPICAL FORWARD SURGE CHARACTERISTICS

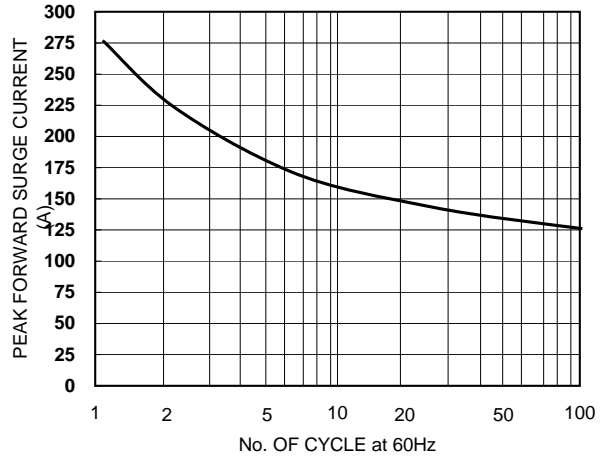


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

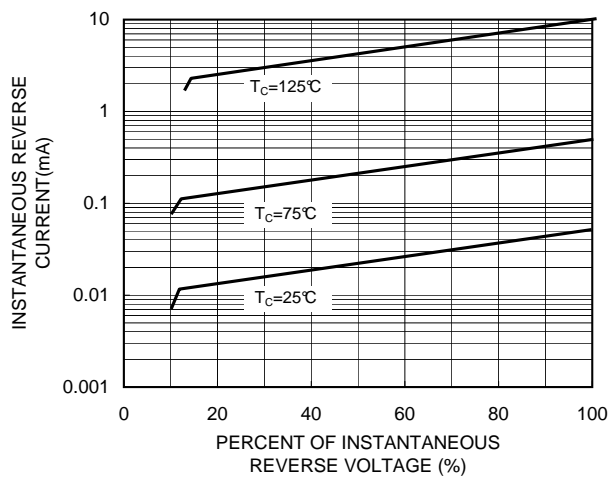


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

